REMARKS

Status of the Specification

The Specification has been amended at page 15, lines 31-34 to label recited oligonucleotide sequences with SEQ ID NOs.

No new matter has been added.

Status of the Sequence Listing

A sequence listing containing the oligonucleotide sequences recited at page 15, lines 31-34 of the Specification has been submitted for this application.

Statement regarding Sequence Listing

Enclosed herewith is an electronic copy of the Sequence Listing respectfully submitted in connection with the above-identified application to be inserted into the Specification. This Sequence Listing in no way introduces new matter into the specification. The added sequences are found in the specification at page 15, lines 31-34.

The electronic copy of the Sequence Listing is named "2007_09_26_Sequece_Listing.txt" and the Sequence Listing has been filed by EFS-Web, therefore, no paper or CD copy of the Sequence Listing is provided.

No new matter has been added by the Sequence Listing.

Status of the Claims

Claims 1-25 are pending in this application; claims 1-15 have been previously examined.

Claims 1-4 and 7-13 have been amended for improved grammar.

Claims 5 and 6 have been amended to correct their dependence to claims 3 and 4.

New claims 16-18 depend from claim 1, and specify that the receptor is an antibody, a polyclonal antibody and a monoclonal antibody, respectively. Support for these claims appears, for instance, at page 9, lines 12-15 and lines 31-32.

New claim 19 depends from claim 1, and recites the limitation formerly recited in claim 1 that the amount of identified GBP-1 is quantified. Support for this claim appears, for instance, in original claim 1.

New claims 20-22 depend from claim 1, and recite that the tissues, body fluids and cell cultures recited in claim 1 are cultivated endothelial cells, cultured endothelial cells, stimulated HUVEC, and human serum, human plasma or human liquor, respectively. Support for these claims is found, for instance, in Figures 2, 3, 4, 5, 9 and 10, respectively.

New claim 23 depends from claim 8, and recites the optional limitation formerly recited in claim 8 that the detection step comprises a Western blot.

New claim 24 depends from claim 9, and recites the limitation formerly recited in claim 11 that the label on the second receptor is specifically recognized by a third receptor comprising a system emitting a signal.

New claim 25 depends from claim 24 and recites the limitation formerly recited in claim 13 that the third receptor is selected from the group consisting of peptides, polypeptides, low-molecular substances, antibodies or fragments or derivatives thereof and aptamers.

No new matter has been added.

1. Sequence Compliance

The Examiner has required compliance with 37 CFR 1.821(a)(1) and (a)(2). (Office Action, page 2). Applicants have amended the Specification so that the oligonucleotide sequences recited on page 15 of the Specification are labeled with SEQ ID NOs, and Applicants have submitted a Sequence Listing containing those sequences; thereby placing this application in compliance with the requirements of 37 CFR 1.821(a)(1) and (a)(2).

2. Claim Objections

The Examiner has objected to claims 2, 10 and 11 for formalities. (Office Action, page 2).

The Examiner believes that claim 2 is missing a phrase. Applicants have amended claim 2, thereby obviating the rejection.

The Examiner asserts that the subject of claim 10 is singular, and has required correction. Applicants have amended claim 10 as suggested by the Examiner, thereby obviating the rejection.

Although the Examiner does not state a reason for the objecting to claim 11, Applicants believe that claim 11 is included in the objection because it depends from claim 10. Accordingly, the amendment to claim 10 has also obviated the rejection in regard to claim 11.

3. Claim Rejections under 35 USC §112, First Paragraph – Written Description

The Examiner has rejected claims 1-15 as allegedly failing to comply with the written description requirement. (Office Action, pages 3-5). Applicants respectfully traverse.

In imposing the written description rejection, the Examiner contends that:

> "*...the scope of the claims includes numerous structural and functional variants, the genus' are highly variant because a significant number of structural and functional differences between genus members is permitted. The specification and claims do not provide any guidance as to what changes should be made. Structural and functional features that could distinguish fragments, a receptor, a tissue sample, a body fluid, a surface, a specific binding, an epitope, a system emitting signal, an enzyme, and a peptide, polypeptide, antibody, low molecular substance, and fragments thereof are missing from the disclosure.*" (Office Action, page 4).

In overview, Applicants respectfully submit that, at times, the analysis underlying the written description rejection confers an expansive breadth to the scope of the claims which, while conceptually and theoretically possible, is factually unrealistic. In addition, Applicants respectfully submit that the analysis underlying the written description rejection is grounded on an assumption that the skill level of an ordinary artisan in the field of the present invention is so abysmally low that he/she brings absolutely no knowledge to the patent, and must have every detail of every step within the scope of the presently claimed methods spelled out in order to understand that Applicants had possession of the claimed invention. Such a low assignment of knowledge, ability and skill to an ordinary artisan in the filed of the invention is factually unrealistic and violates binding legal precedent.

In the following sections, Applicants specifically and fully address each aspect of the Examiner's rationale for imposing the written description rejection.

3.1 The Size of the Genus of Detected GBP-1 Fragments

First of all, Applicants point out that the amended claims are restricted to methods of identifying, detecting and quantifying one (1) protein, GBP-1, and its fragments in supernatants of tissues, body fluids and cell cultures. While there may conceptually and theoretically be a near infinite number of GBP-1 fragments in the supernatants of tissues, body fluids and cell cultures, the fact of the matter is that the identification and quantification of GBP-1 in the supernatants of tissue samples, body fluids and cell cultures in full-length form or in the form of a manageable number of fragments is disclosed for the first time by the present Specification. In support of this factual situation, Applicants direct the Examiner's attention to the disclosure of the present Specification. For instance, the Figures teach the successful detection of full-length GBP-1 and a manageable number of its fragments from the supernatants of cultivated endothelial cells, cultured endothelial cells, stimulated HUVECs, human serum, human plasma and human liquor in Figures 2, 3, 4, 5, 9 and 10, respectively.

Applicants emphasize the fact that the amended claims are method claims directed to identifying, detecting and/or quantifying GBP-1 and GBP-1 fragments in the supernatants of tissues, body fluids and cell cultures. The claims are therefore restricted to full length GBP-1 and the manageable number of GBP-1 fragments that in fact exist in the supernatants of tissues, body fluids and cell cultures, as established by the above-referenced teachings of the Specification. The Examiner's characterization of the number of GBP-1 fragments that comprise the presently claimed genus of detected GBP-1 fragments amounts to a massive overestimate because it includes a multitude of fragments which, although they could conceptually or theoretically exist, do not exist in fact. Applicants' position is supported by the scientific results of the ELISA assays and Western blots presented in the working examples and Figures of the present Specification.

Applicants also point out that the Examiner does not cite any scientifically authoritative source which shows that the genus of GBP-1 fragments in the supernatant of tissue samples, body fluids and cell cultures is in fact comprised of an unmanageable number of species; but engages in mere speculation regarding the conceptual and theoretical size of the number of GBP-1 fragments that comprise the genus. In doing so, the Examiner has failed to meet his evidentiary burden of proof in taking the position that the genus of GBP-1 fragments is so broad relative to the scope of Specification's disclosure that a skilled artisan, upon reading the Specification, would question that Applicants had possession of the claimed genus at the time of filing.

In addition, Applicants submit that the Examiner has failed to give sufficient evidentiary weight to the scientific disclosure of the working examples and Figures of the present Specification, which factually establish that Applicants had possession of the claimed genus of GPB-1 and of GPB-1 fragments actually present in the supernatants of tissue cultures, cell cultures and body fluids. Rather, the Examiner completely fails to take into account any of the scientific disclosure of the present Specification in imposing the written description rejection.

The Examiner is reminded that the present invention is directed to not GPB-1 *per se*, and so description of a structure-function relationship for the protein is irrelevant.

In view of the foregoing remarks, Applicants submit that the Examiner has failed to make a *prima facie* showing that a person of ordinary skill in the art, upon reading the originally filed Specification, would question if Applicants had possession of the genus of GBP-1 fragments that are factually established through scientific results disclosed in the Specification as being within the scope of the claims.

3.2 The Facts of the Presently Claimed Invention and the Legal Standards for Written Description

The Examiner also supports the written description rejection on the grounds that "missing from the disclosure" is "sufficient disclosure" of structural and functional features of such things as a tissue sample, a body fluid, specific binding, an epitope, a signal emitting system, a peptide, polypeptide, antibody, etc. (Office Action, page 4). The Examiner further asserts that "specific, not general, guidance is what is needed" on the grounds that person of skill in the art of the presently claimed invention is not art-enabled to isolate and identify such things as a tissue sample, a body fluid, a protein, an epitope, a signal emitting system, etc. (Office Action, pages 4 and 5).

Applicants respectfully submit that this series of assertions made by the Examiner amounts to clear legal and factual error.

In particular, it is well established under case law that that a "... patent specification is written for a person of skill in the art, and such a person comes to the patent with the knowledge of what has come before." *LizardTech, Inc. v. Earth Resource Mapping, PTY, Inc.*: 424 F.3d 1336, 1345 (Fed. Cir. 2005) (citing *Union Oil Co. v. Atl. Richfield Co.*, 208 F.3d. 989, 997 (Fed. Cir. 2000); *In re GPAC Inc.*, 57 F.3d 1573, 1579 (Fed. Cir. 1995)). Accordingly, "...it is unnecessary to spell out every detail of the invention in the specification; only enough must be included to convince a person of skill in the art that the inventor possessed the invention and to enable such a person to make and use the invention without undue experimentation." *Id.* Moreover, it is also well established that a patent need not teach, and preferably omits, what is well known in the art. *In re Buchner*, 929 F.2d 660, 661, 18 USPQ2d 1331, 1332 (Fed. Cir. 1991).

With these standards in mind, Applicants direct the Examiner's attention to the fact that the isolation, detection and quantification of proteins and protein fragments from tissue samples,

body fluids and cell cultures with specifically binding receptors and/or antibodies through the use of signal emitting systems such as ELISA assays, Western blots, immunohistochemistry, immunofluorescence, etc. are amongst the most fundamental and reliable scientific techniques available to artisans of ordinary skill in the field of the presently claimed invention. This fact is supported by vast scientific literature, including the seminal laboratory manual of molecular biology, *Molecular Cloning (Third Edition)* (Sambrook, J. and Russell, D.W. *Molecular Cloning: A Laboratory Manual*, Third edition Cold Spring Harbor Laboratory Press: Cold Spring Harbor, New York (2001)), and the treatise *Monoclonal Antibodies: A Practical Approach*, Oxford University Press (2000) (abstract enclosed). These and other laboratory manuals establish that protocols for protein and protein fragment identification, detection and quantification are known and practiced in the art.

Applicants submit that this factual situation is further established by surveying the materials and methods and results sections of articles published in biological science journals at the time the present application was filed. For instance, 109 of the 142 articles published in the issue of *The Journal of Biological Chemistry* (JBC) dated December 20, 2002 (the PCT filing date of the present application) disclose protocols for practicing some or all of the steps involved in detecting and quantifying proteins and protein fragments in samples from tissue cultures, body fluid and cell culture supernatants with antibodies and detection by use of signal emitting systems such as ELISA assays, Western blots, immunohistochemistry, immuno-fluorescence, etc.[1] (See the reference list submitted with this paper).

Applicants submit that JBC is representative of the scientific periodical literature and accurately reflects the knowledge, skill and ability of a person of ordinary skill in the art. Even if only a small fraction of the articles identified in the attached list included protocols for performing methods such as those recited in the present claims, this establishes the fact that, in contrast to the Examiner's above-referenced assertion, a person of ordinary skill in the art of the present

[1]Applicants point out that all of the articles listed in the Table of Contents of the December 20, 2002 issue of the JBC were keyword searched using some or all of the terms recited in the claims including: "antibody," "body fluid,"

invention in fact brings with him/her substantial knowledge, skill and ability to successfully practice the generalized aspects of the claims relating to tissue samples, body fluids, proteins, an epitope, receptors, antibodies, signal emitting systems, etc.

It follows that, under *LizardTech, Inc.*, it is unnecessary for Applicants to spell out every detail of the invention in the Specification because it is written for a person of skill in the art, and such a person comes to the patent with substantial knowledge regarding the tissue samples, body fluids, specific binding, epitopes, signal emitting systems, peptides, polypeptides, antibodies, etc. within the scope of the present claims. In fact, under *In re Buchner*, the "specific, not general, guidance" mistakenly called for by the Examiner to satisfy the written description requirement should be omitted from the Specification.

Once again, Applicants point out that the Examiner does not cite any scientific or authoritative source which establishes that abperson of ordinary skill in the art of the presently claimed invention would believe the Inventors could not isolate, identify or work with such things as a tissue sample, a body fluid, a protein, an epitope, a signal emitting system, etc. based on the disclosure of the present specification. Rather, the Examiner engages in mere speculation about the state of the art that amounts to a severe mischaracterization of it. The severity of this mischaracterization is established in fact by the scientific literature at the time this application was filed, as discussed above. The severity of the mischaracterization is established in law, for instance, by *In re Wands*, where the Court held that there is a high level of skill in the art of molecular biology. *In re Wands,* at 858 F.2d 731, 737, 8 USPQ2d 1400, 1404 (Fed. Cir. 1988).

3.3 Conclusion

In summary, Applicants respectfully submit that, as discussed above, the analysis underlying the written description rejection involves factually and legally unrealistic, improper and

"supernatant," "tissue," "epitope," etc. The context of each hit was reviewed, and 76% of the articles in the December 20, 2002 volume of the JBC were found to disclose the above-described protocols.

untenable assertions based on mere speculation unsupported by evidence. Applicants respectfully submit that the Examiner has overestimated the size of the genus of GBP-1 fragments on factually unsupported theoretical and conceptual speculation; and the Examiner has underestimated the level of skill, ability and knowledge of a person of ordinary skill in the art of the present invention, in disregard of factual reality and binding legal precedent. Moreover, the Examiner has failed to give the scientific disclosure of the present Specification its proper evidentiary weight.

In doing so, the Examiner has failed to make a *prima facie* showing that a person of ordinary skill in the art would not believe that Applicants had possession of the full scope of the presently claimed invention. Applicants further submit that the present Specification and state of the art, when properly weighted, in fact compel a finding of more than adequate written description regarding the full scope of the presently claimed invention.

4. Claim Rejections under 35 USC §112, First Paragraph – Enablement

The Examiner has rejected claims 1-15 as allegedly not enabled. (Office Action, pages 5-10). Applicants respectfully traverse.

Applicants address each aspect of the analysis underlying the Examiner's enablement rejection in the following sections.

4.1 The Nature of the Invention and the Breadth of the Claims

The Examiner asserts that the claims are directed to a large number of GPB-1 protein fragments, receptors, tissue samples and body fluids. (Office Action, page 6). Applicants submit that this assertion is a factual mischaracterization of the claimed genus of GBP-1 protein fragments, as established above in Sections 3.1 and 3.2. For instance, the invention is a method for detecting GPB-1 in a sample. The invention relates to finding that GPB-1 is a secreted protein, and so the

claims state the nature of the sample as a supernatant of a tissue culture, a supernatant of a cell culture or a body fluid.

4.2 The Unpredictability and State of the Art

The Examiner asserts that the state of the art for identifying and measuring fragments of GBP-1 in any sample or tissue or cell culture supernatant is not well characterized. The Examiner cites references by Sturlz and Lubseder-Martellato, which teach methods of detecting GBP-1 or parts of GBP-1 in the intracellular spaces of certain, specified cell types, and notes that the art is silent regarding the expression of GBP-1 in cell types not expressly addressed in the Sturlz and Lubseder-Martellato references. From this, the Examiner somehow concludes, without explanation, that the detection of GBP-1 in cultured HUVEC by ELISA and the measurement of circulating GBP-1 in the plasma of patients, as taught in the working examples of the present specification, are not predictive for any *in vitro* method for identifying and/or quantifying GBP-1 or GBP-1 fragments, as claimed. (Office Action, pages 7-8).

Applicants point out that case law establishes that an applicant's specification is presumptively enabled for the full scope of the claims. *In re Marzocchi, 169 U.S.P.Q. 367, 370 (C.C.P.A. 1971).* Accordingly, MPEP §2164.04 specifically states that the Examiner has the initial burden to establish a reasonable basis to question the enablement of the claimed invention. This reasonable basis must be established by the Examiner by "making specific findings of fact, supported by evidence, and then drawing conclusions based on these findings of fact". . . "specific technical reasons are always required." *Id.* (emphasis added). Absent such evidence, the burden does not shift to the Applicants. *In re Marzocchi,* 169 U.S.P.Q. at 369.

Applicants respectfully submit that "silence" in the art regarding "GBP-1 expression in other cell types" is not tantamount to unpredictability in the art, and the references cited by the Examiner actually teach successful detection of GBP-1 in the intracellular spaces of a variety of cell types.

In addition, practicing a method for detecting GBP-1 or its fragments in culture supernatants or body fluids does not require knowledge of the cells from which they are produced. Indeed, such a method is useful for determining what cells produce GBP-1 by culturing them, if this is of interest.

The Examiner has not cited any specific, technical reasons supported by evidence that provide a reasonable basis to question the enablement of the presently claimed methods of identifying, detecting and quantifying GBP-1 and GBP-1 fragments in the supernatants of tissue cultures, supernatants of cell cultures and body fluid samples. Rather, the Examiner has made a vague speculation, unsupported by fact or logic, that the prior art which teaches successful detection of GBP-1 in intracellular contexts outside the scope of the present claims somehow indicates that the working examples disclosed in the present Specification are anomalous and non-predictive of operability with any other kind of sample. It follows that, under *In re Marzocchi*, the Examiner has not made a *prima facie* showing of a lack of enablement.

4.3 Working Examples

The Examiner rigidly states that only the subject matter recited in the working examples of the Specification is enabled, and engages in an inaccurate and strained analysis of the Specification, claims and state of the art to come to the untenable determination that the present claims are not enabled. The Examiner vaguely states that the Specification does not provide working examples for the steps of labeling proteins contained in a sample or labeling a receptor. (Office Action, pages 5 and 9). Applicants respectfully submit that the Examiner appears to be mechanistically requiring that all claimed subject matter be supported by working examples, which violates well-established principles of patent law.

The enablement requirement does not require working examples. *Atlas Powder Co. v. E.I. Du Pont De Nemours & Co., 750* F.2d 1569 (Fed. Cir. 1984) (explaining that inclusion of only prophetic examples "does not automatically make a patent nonenabling"); *In re Long,* 368 F.2d

892, 895 (C.C.P.A. 1966) (stating that "[t]he absence of a working example, denominated as such, does not compel the conclusion that a specification does not satisfy the requirements of 35 U.S.C. 112"); and M.P.E.P. § 2164.02 ("[c]ompliance with the enablement requirement of 35 U.S.C. 112, first paragraph, does not turn on whether an example is disclosed.").

Applicants submit that the working examples of the Specification, together with the full disclosure of the Specification and knowledge and skills of a person of ordinary skill in the art, support the enablement of the full scope of the presently claimed GBP-1 and GBP-1 fragment detection methods. The Examiner's rigid rejection of any subject matter not directly supported by working Examples amounts to clear legal error, and reflects a misunderstanding of or a disregard for binding legal precedent.

4.4 Quantity of Experimentation Needed to Practice the Claimed invention

It is well established that the enablement requirement is satisfied when one skilled in the art, after reading the specification, could practice the claimed invention without undue experimentation. *AK Steel Corp. v. Sollac & Ugine*, 344 F.3d 1244, 1238-39 (Fed. Cir. 2003). But the test of enablement is not whether any experimentation is necessary, but whether, if experimentation is necessary, it is undue. *In re Angstadt*, 537 F.2d 498, 504, 190 USPQ 214, 219 (CCPA 1976). Here, the fact that experimentation may be complex does not necessarily make it undue, if the art typically engages in such experimentation. *In re Wands*, 858 F.2d at 737 (Fed. Cir., 1988). Moreover, a patent need not teach, and preferably omits, what is well known in the art. *In re Buchner*, 929 F.2d 660, 661, 18 USPQ2d 1331, 1332 (Fed. Cir. 1991).

Applicants once again submit that the isolation, detection and quantification of proteins and protein fragments from supernatants of tissues, body fluids and cell cultures with receptors and antibodies that specifically bind epitopes through the use of signal emitting systems such as ELISA assays, western blots, immunohistochemistry, immunoflourescence, etc. are amongst the most fundamental, reliable and widely used scientific techniques available to artisans of ordinary

skill in the field of the presently claimed invention. As discussed above in Section 3.2, this fact is supported by a great weight of scientific literature, including several laboratory manuals.

As further evidence of the widespread use of these materials and methods, Applicants again point out that 109 of the 142 articles (76%) published in the JBC issue dated December 20, 2002 disclose protocols for practicing some or all of the steps involved in identifying, detecting and quantifying proteins and protein fragments in tissue samples, body fluids and cell culture supernatants with antibodies that specifically bind epitopes through the use of signal emitting systems such as ELISA assays, western blots, immunohistochemistry, immunofluorescence, etc. (See the reference list submitted with this paper). It follows that, under *In re Angstadt* and *In re Wands*, even though the experimentation necessary to practice the present invention may be complex, it is not undue because its widespread use establishes that the art typically engages in such experimentation.

4.5 Conclusion

In view of the foregoing remarks, Applicants submit that the presently claimed methods for detecting GBP-1 and GBP-1 fragments are fully enabled. Applicants respectfully request the Examiner to reconsider and withdraw the enablement rejection.

5. Claim Rejections under 35 USC §112, Second Paragraph

The Examiner has rejected claims 1-15 as allegedly indefinite. (Office Action, pages 11-12). Applicants respectfully traverse.

The Examiner has rejected claims 1-15 as allegedly indefinite because the claims do not have a step that clearly relates back to the preamble of claim 1. (Office Action, page 11). Applicants have amended the claims to recite that the contacting and detecting steps identify the presence of and/or quantifying the amount of GBP-1, thereby obviating the rejection.

The Examiner has rejected claims 1-15 as allegedly indefinite for containing an improper Markush group. (Office Action, page 11). Applicants have amended the claims as described in Section 1 above, thereby obviating the rejection.

The Examiner has asserts that Applicants have not clearly defined "receptor." Applicants direct the Examiner's attention to the following disclosure in the Specification at page 3, lines 11-17:

> According to the invention, the term "specific binding" describes a specific interaction between a receptor and a ligand. One example of such a ligand is GBP-1 or fragments of this protein. The specific interaction can be characterised with a "key-lock-principle". The receptor and the ligand have structures or motifs which fit with each other specifically, as e.g. an antigenic determinant (epitope) which interacts with the antigen binding site of an antibody. Accordingly, specific interaction is contrary to a more universal, more unspecific interaction.

Applicants submit that this usage of "receptor" sufficiently defines the term. Accordingly, Applicants respectfully request reconsideration and withdrawal of this rejection.

The Examiner has rejected claims 2 and 5-8 as allegedly indefinite because the Examiner asserts that it is not clear how claim 2 steps (a') and (a") can occur prior to contacting the first receptor. (Office Action, page 12). Applicants respectfully submit that it clear that proteins and receptors can be labeled prior to contacting them with a receptor that binds to them. Applicants therefore respectfully request reconsideration and withdrawal of this rejection.

The Examiner has rejected claims 2 and 5-8 as allegedly indefinite because it is not clear which proteins are to be labeled in 2(a') . (Office Action, page 12). Applicants submit that it is clear that step 2(a') specifies that all proteins in the sample are labeled. In 2(a"), all receptors are labeled. Applicants therefore respectfully request reconsideration and withdrawal of this rejection.

The Examiner has rejected claims 5-8 as allegedly indefinite because it recites "the surface" and "the material of the surface" without antecedent basis. (Office Action, page 12). Applicants have amended claim 5 so that it depends from claim 3 and claim 4, thereby obviating the rejection.

The Examiner has rejected claim 8 as allegedly indefinite because it is unclear what detection methods it encompasses. (Office Action, page 12). Applicants have amended claim 8 so that it only recites gel electrophoretic separation and have added new claim 23, which depends from claim 8, and recites Western blot detection. Accordingly, this rejection is traversed.

The Examiner has rejected claims 11 and 12 as allegedly indefinite because the Examiner is unable to determine whether the second receptor or the signal is recognized by the third receptor. Applicants have amended claims 11 and 12 so that the optional limitations recited there are presented in dependent claims, thereby obviating the rejection.

The Examiner has rejected claims 9-10 and 13 as allegedly indefinite for reciting "second receptor" without antecedent basis. (Office Action, page 12). Applicants have amended claim 9 to recite "a" second receptor, thereby obviating the rejection.

6. Claim Rejections under 35 USC §102(b)

The Examiner has rejected claims 1, 4 and 9-13 as allegedly anticipated by Guenzi et al. (2001). (Office Action, page 13-15). Applicants respectfully traverse.

Applicants point out that the present claims are directed to identifying, detecting and quantifying GBP-1 and GBP-1 fragments in the supernatants of tissue cultures and cell cultures or in body fluids. But Guenzi et al. describe GBP-1 as a non-secreted, intracellular protein, and does not teach or suggest identifying, detecting or quantitating GBP-1 in supernatants or body fluids, as

presently claimed. Accordingly, Guenzi et al. does not anticipate the presently claimed methods, and Applicants respectfully request reconsideration and withdrawal of the present anticipation rejection.

7. Claim Rejections under 35 USC §103

The Examiner has rejected claim 14 as allegedly obvious over Guenzi et al. in view of Sturlz et al. (Office Action, page 15). Applicants respectfully traverse.

In imposing this rejection, the Examiner applies the Guenzi et al. publication in the same manner as in the anticipation rejection. The Examiner relies on Sturlz et al. for its ELISA teachings to find claim 14 obvious.

As discussed above, the present claims are directed to identifying, detecting and quantifying GBP-1 and GBP-1 fragments in the supernatants of tissues, body fluids and cell cultures. But Guenzi et al. disclose GBP-1 as a non-secreted, intracellular protein, and does not teach or suggest identifying, detecting or quantitating GBP-1 in supernatants, as presently claimed. Sturlz et al. provides no teaching that rescues the deficiencies of Guenzi et al., and so the combination of Guenzi et al. and Sturlz et al. fails to teach the presently claimed methods for identifying, detecting and quantitating GBP-1 in the supernatants of tissue cultures, cell cultures or body fluids. Accordingly, Applicants submit that the Examiner has failed to establish a *prima facie* case of obviousness, and respectfully request reconsideration and withdrawal of the obviousness rejection.

8. Conclusion

In view of the foregoing amendments and remarks, Applicants respectfully request allowance of the claims, which define subject matter that meets all statutory patentability requirements.

Pursuant to 37 C.F.R. §§ 1.17 and 1.136(a), Applicant(s) respectfully petition(s) for a three (3) month extension of time for filing a reply in connection with the present application, and the required fee is attached hereto.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Mark J. Nuell (Reg. No. 36,623) at the telephone number of the undersigned below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

Dated: September 26, 2007

Respectfully submitted,

By _____

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Attachments: Exhibit 1: JBC cites
Exhibit 2: Abstract of "Monoclonal Antibodies – A Practical Approach"
Sequence Listing (1 page) – filed by EFS-Web